WE CLAIM:

The embodiments of the invention in which an exclusive property or right is claimed are defined as follows:

1. A system for improving a start time of a MEMS gyroscope, comprising in combination:

a MEMS gyroscope;

drive electronics; and

a noise source operable to inject noise into the drive electronics.

2. The system of Claim 1, wherein the MEMS gyroscope is a vibratory gyroscope.

3. The system of Claim 1, wherein the MEMS gyroscope uses a Coriolis acceleration to detect rotation.

4. The system of Claim 1, wherein the drive electronics applies a drive voltage to at least one motor drive comb which causes at least one proof mass to oscillate.

5. The system of Claim 1, wherein the drive electronics locks onto substantially a tuning fork frequency of at least one proof mass.

6. The system of Claim 1, wherein the noise is injected into the drive electronics after applying a system power source to the MEMS gyroscope.

7. The system of Claim 1, wherein the noise is injected into the drive electronics substantially before the MEMS gyroscope reaches full power.

8. The system of Claim 1, wherein the noise source provides bandwidth limited white noise.

9. The system of Claim 1, wherein a tuning fork frequency of at least one proof mass is located substantially within a bandwidth of the noise.

10. The system of Claim 9, wherein the bandwidth of the noise is substantially centered at the tuning fork frequency of the at least one proof mass.

11. The system of Claim 9, wherein the bandwidth of the noise is substantially +/- 1000 Hertz wide.

12. A system for improving a start time of a MEMS gyroscope, comprising in combination:

a vibratory gyroscope operable to use a Coriolis acceleration to detect rotation;

drive electronics operable to apply a drive voltage to at least one motor drive

comb which causes at least one proof mass to oscillate, and wherein the drive electronics locks onto substantially a tuning fork frequency of the at least one proof mass; and

a noise source operable to inject bandwidth limited white noise into the drive electronics, wherein a bandwidth of the bandwidth limited white noise is substantially centered at a tuning fork frequency of the at least one proof mass, and wherein the bandwidth of the bandwidth limited white noise is substantially +/- 1000 Hertz wide.

13. The system of Claim 12, wherein the noise is injected into the drive electronics after applying a system power source to the tuning fork gyroscope.

14. The system of Claim 12, wherein the noise is injected into the drive electronics substantially before the tuning fork gyroscope reaches full power.

15. A method for improving a start time of a MEMS gyroscope system, comprising injecting noise into drive electronics.

16. The method of Claim 15, wherein the MEMS gyroscope is a vibratory gyroscope.

17. The method of Claim 15, wherein the MEMS gyroscope uses a Coriolis acceleration to detect rotation.

18. The method of Claim 15, wherein the noise is injected into the drive electronics after applying a system power source to the MEMS gyroscope.

19. The system of Claim 15, wherein the noise is injected into the drive electronics substantially before the MEMS gyroscope reaches full power.

20. The method of Claim 15, wherein the noise is bandwidth limited white noise.

21. The method of Claim 20, wherein a bandwidth of the noise is substantially centered at a tuning fork frequency of at least one proof mass.

22. The method of Claim 20, wherein a bandwidth of the noise is substantially +/- 1000 Hertz wide.

23. The method of Claim 15, wherein the drive electronics applies a drive voltage to at least one motor drive comb which causes at least one proof mass to oscillate.

24. The method of Claim 15, wherein the drive electronics locks onto substantially a tuning fork frequency of at least one proof mass.